

REMARKS

Applicants respectfully request reconsideration based on the following remarks. Applicants respectfully submit that the claims as they presently stand are in condition for allowance.

CLAIM REJECTIONS - § 103

Claims 1-4 and 8-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim (US 2001/0019126) in view of Lee (US 2002/0041347) and/or Tseng (US 2002/0052058) for the reasons stated on pages 2-4 of the Office Action. Applicants respectfully traverse the rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996). Neither Kim nor Lee and/or Tseng, alone or in combination, teach or suggest all elements of the claimed invention for the reasons stated as follows.

Claim 1 recites a contact structure of a semiconductor device, the contact structure comprising: a dry-etchable lower conductive film; an upper conductive film formed on the lower film and including Al or Al alloy, the upper film having edges located on the lower film; an insulator having a contact hole exposing at least a portion of the lower film; and an IZO layer formed on the insulator and contacting the lower film and a top surface of the upper film through the contact hole. In claim 1, the IZO layer contacts both the lower film and the top surface of the upper film. Fig. 1B of the Application, for example, teaches that the IZO layer (76) contacts the upper surface of the upper film (72q) as well as the lower film (72p). Therefore, the connection between the IZO layer and the wire can be improved in the claimed invention.

In contrary, Fig. 14 and paragraph [0030] of Kim teach that the transparent conductive-layer (44) is disposed on the entire surface of the structure of Fig. 13, in which the insulation layer (34) is disposed on the upper surface of the layer (32) of an aluminum alloy, and into the contact holes. Therefore, it is the insulation layer (34) that contacts the top surface of the layer (32) of the aluminum alloy. Thus, Kim neither teaches nor suggests the feature "an IZO layer formed on the insulator and contacting the lower film and an upper surface of the upper film through the contact hole", as recited in claim 1. The deficiency of Kim is not cured by Lee, because Lee neither teaches nor suggests the feature "an IZO layer formed on the insulator and contacting the lower film and an upper surface of the upper film through the contact hole", as recited in claim 1. Accordingly, the combination of Kim and Lee does not render claim 1 obvious because none of them teaches or suggests the feature "an IZO layer formed on the insulator and contacting the lower film and a top surface of the upper film through the contact hole", as recited in claim 1.

In addition, the Examiner states on page 3 of the instant office action that as evidenced on the cover page of Tseng, "a direct contact in sufficient areas between the top surface of the gate conducting layer (46) and the transparent pixel electrode layer (58a) are desirable [to] sufficiently reduce the contact resistance therebetween." However, it is respectfully submitted that Tseng merely discloses contact between the top surface of a single conductive layer (i.e., pad electrode 46) and the transparent conductive layer (58a). Therefore, a combination of Kim and Tseng does not disclose a structure as claimed such that the transparent layer contacts both the upper and lower conductive layers. Moreover, it is respectfully submitted that combination of Kim and Tseng as alleged by the Examiner would require dramatic transformation of either of the structures disclosed in Kim and Tseng to arrive at the claimed structure. Motivation to combine Kim and Tseng as suggested by the Examiner is not taught or suggested in either reference.

Accordingly, neither Kim nor Lee and/or Tseng teach or suggest, alone or in combination, the feature "an upper conductive film formed on the lower film and including Al or Al alloy, the upper film having edges located on the lower film;

an insulator having a contact hole exposing at least a portion of the lower film; and an IZO layer formed on the insulator and contacting the lower film and an upper surface of the upper film through the contact hole", as recited in claim 1.

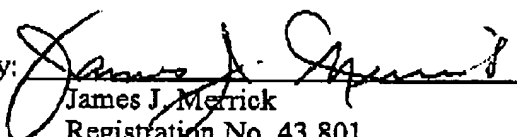
Since it contains similar features, claim 8 is believed to allowable for at least the reasons given for claim 1. Claims 2-4 depend from claim 1, and claims 9-10 and 12-15 depend from claim 8. These dependent claims are believed to be allowable due to their dependency on claims 1 and 8.

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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